

ABSTRACT

A method of responding to an anomalous change in downhole pressure in a bore hole comprises detecting the anomalous change in downhole pressure, sending a signal along the segmented electromagnetic transmission path, receiving the signal, and performing a automated response. The anomalous change in downhole pressure is detected at a first location along a segmented electromagnetic transmission path, and the segmented electromagnetic transmission path is integrated into the tool string. The signal is received by at least one receiver in communication with the segmented electromagnetic transmission path. The automated response is performed along the tool string. Disclosed is an apparatus for responding to an anomalous change in downhole pressure in a downhole tool string, comprising a segmented electromagnetic transmission path connecting one or more receivers and at least one pressure sensor.